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ABSTRACT

In successfully establishing and having students complete group tasks within a cooperative learning framework, 14 essential elements must be present. The elements necessary for cooperative learning are: (1) a clear set of specific student learning outcome objectives; (2) all students in the group accept the targeted outcome; (3) clear and complete set of task-completion directions or instructions; (4) heterogeneous groups; (5) equal opportunity for success; (6) positive interdependence; (7) face-to-face interaction; (8) positive social interaction behaviors and attitudes; (9) access to information students must learn; (10) opportunities to complete required information processing tasks; (11) sufficient time spent learning; (12) individual accountability; (13) public recognition and rewards for group academic success; and (14) post-group reflection on within-group behaviors. Although all of the elements do not have to be used every time the teacher assigns students to work in groups, teachers who fail to include the requirements report far more difficulties with students and group activities and far less student achievement gains than do teachers who meet them. (Author/CK)

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by
Robert J. Stahl

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The Essential Elements of Cooperative Learning in the Classroom

by Robert J. Stahl

Over the past decade, cooperative learning has emerged as the leading new approach to classroom instruction. One important reason for its advocacy is that numerous research studies in K-12 classrooms, in very diverse school settings and across a wide range of content areas, have revealed that students completing cooperative learning group tasks tend to have higher academic test scores, higher self-esteem, greater numbers of positive social skills, fewer stereotypes of individuals of other races or ethnic groups, and greater comprehension of the content and skills they are studying (Johnson, Johnson, and Holubec 1993; Slavin 1991; Stahl and VanSickle 1992). Furthermore, the perspective of students working as "academic loners" in classrooms is very different from that of students working cooperatively and collaboratively *in and as* "cooperative learning academic teams" (see the chapter by Stahl in Stahl and VanSickle 1992).

Even with its increasing popularity, a large majority of the group tasks that teachers use, even teachers who claim to be using "cooperative learning," continue to be cooperative group tasks—*not* cooperative learning group tasks. For instance, nearly all "jigsaw" activities are *not* cooperative learning jigsaw activities. Merely because students work in small groups does not mean that they are cooperating to ensure their own learning and the learning of all others in their group (Johnson, Johnson, and Holubec 1993). This emphasis on academic learning success for each individual and all members of the group is one feature that separates cooperative learning groups from other group tasks (Slavin 1990).

To be successful in setting up and having students complete group tasks within a cooperative learning framework, a number of *essential elements* or requirements must be met. The exact number, name, and order of these requirements vary from one author to another. However, nearly all agree that, in one way or another, the elements listed below are essential.

- **A Clear Set of Specific Student Learning Outcome Objectives.** Cooperative learning and cooperative learning groups are means to an end rather than an end in themselves. Therefore, teachers should begin planning by describing precisely what students are expected to learn and be able to do on their own well beyond the end of the group task and curriculum unit. Regardless of whether these outcomes emphasize academic content, cognitive processing abilities, or skills, teachers should describe in very unambiguous language the specific knowledge and abilities students are to acquire and then demonstrate on their own.
- **All Students in the Group "Buy Into" the Targeted Outcome.** It is not sufficient for teachers to select outcome objectives: students must perceive these objectives as their own. They must come to comprehend and accept that everyone in the group needs to master the common set of information and/or skills. In selected strategies where groups select their own objectives, all members of each group must accept their academic outcomes as ones they all must achieve.
- **Clear and Complete Set of Task-Completion Directions or Instructions.** Teachers need to state directions or instructions that describe in clear, precise terms exactly what students are to do, in what order, with what materials, and, when appropriate, what students are to generate as evidence of their mastery of targeted content and skills. These directions are given to students ***before*** they engage in their group learning efforts.
- **Heterogeneous Groups.** Teachers should organize the three-, four-, or five-member groups so that students are mixed as heterogeneously as possible, first according to academic abilities, and then on the basis of ethnic backgrounds, race, and gender. Students should not be allowed to form their groups based on friendship or cliques. When groups are maximally heterogeneous and the other essential elements are met, students tend to interact and achieve in ways and at levels that are rarely found in other instructional strategies. They also tend to become tolerant of diverse viewpoints, to consider others' thoughts and feelings in depth, and seek more support and clarification of others' positions. (A limited number of proven cooperative learning strategies allow teachers academically sound alternatives to maximal heterogeneous groups. If these strategies are not used, then maximal heterogeneity along the above criteria is needed.)
- **Equal Opportunity for Success.** Every student must believe that he or she has an equal chance of learning the content and abilities, and earning the group rewards for academic success, regardless of the group he or she is in. In other words, the student must not feel penalized academically by being placed in a particular group.
- **Positive Interdependence.** Teachers must structure learning tasks so that students come to believe that they ***sink or swim together***—that is, their access to rewards is as a member of an academic team wherein all members receive a reward or no member does. Essentially tasks are structured so that students must depend upon one another for their personal, teammates', and group's success in completing the assigned tasks and mastering the targeted content and skills.
- **Face-to-Face Interaction.** Students need to arrange themselves so that they are positioned and postured to face each other for direct eye-to-eye contact and face-to-face academic conversations using "12 inch voices."
- **Positive Social Interaction Behaviors and Attitudes.** Merely because students are placed in groups and expected to use appropriate social and group skills does not mean students

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will automatically use these skills. To work together *as a group*, students need to engage in such interactive abilities as leadership, trust-building, conflict-management, constructive criticism, encouragement, compromise, negotiation, and clarifying. Teachers may need to describe the expected social interaction behaviors and attitudes of students and to assign particular students specific roles to ensure that they consciously work on these behaviors in their groups.

- **Access to Must-Learn Information.** Teachers must structure the tasks so that students have access to and comprehend the specific information that they must learn. The content focus of learning tasks must be aligned directly with the specific outcome objectives and the test items that will be used to measure their academic achievement.
- **Opportunities to Complete Required Information-Processing Tasks.** For students to be successful, each must complete a number of internal information-processing tasks aligned with targeted objectives, such as comprehending, translating, making connections, assigning meanings, organizing the data, and assessing the relevancy and uses of the information they study. Assigned group tasks direct students to complete the relevant internal processing tasks they need to complete.
- **Sufficient Time is Spent Learning.** Each student and group should be provided the amount of time needed to learn the targeted information and abilities to the extent expected. Without students' spending sufficient time learning, the academic benefits of cooperative learning will be limited (Stahl 1992). (Many of the positive affective, social skills and attitudes, and academic benefits of cooperative learning tend to emerge and be retained only after students have spent four or more weeks together in the same heterogeneous group.)
- **Individual Accountability.** The reasons why teachers put students in cooperative learning groups is so all students can achieve higher academic success individually than were they to study alone. Consequently, each must be held individually responsible and accountable for doing his or her own share of the work and for learning what has been targeted to be learned. Therefore, each student must be formally and individually tested to determine the extent to which he or she has mastered and retained the targeted academic content and abilities.
- **Public Recognition and Rewards For Group Academic Success.** Only members of groups who meet or surpass high levels of academic achievement receive ample rewards within formal public settings. The specific awards must be something valued by the students.
- **Post-Group Reflection (or Debriefing) On Within-Group Behaviors.** Students spend time after the group tasks have been completed to systematically reflect upon how they worked together ***as a team*** in such areas as (a) how well they achieved their group goals, (b) how they helped each other comprehend the content, resources, and task procedures, (c) how they used positive behaviors and attitudes to enable each individual and the entire group as a group to be successful, and (d) what they need to do next time to make their groups even more successful.

Every one of the preceding elements does not have to be used every time the teacher assigns students to work in groups. However, teachers who fail to include these requirements report far more difficulties with their students and their group activities, and far less student academic achievement gains than do teachers who meet them. As a general rule, unless a well-researched strategy is used that allows for an alternative to one or more of these elements, teachers serious about implementing effective cooperative learning activities need to ensure that these requirements are met for each cooperative learning strategy they use—otherwise they are using structured cooperative groups. More importantly, unless these elements are used frequently and correctly, teachers should not expect the many positive long-term results of cooperative learning that can be achieved.

References and ERIC Resources

The following list of resources includes references used to prepare this Digest. The items followed by an ED number are available in microfiche and/or paper copies from the ERIC Document Reproduction Service (EDRS). For information about prices, contact EDRS, 7420 Fullerton Road, Suite 110, Springfield, Virginia 22153-2842; telephone numbers are (703) 440-1440 and (800) 443-3742. Entries followed by an EJ number, annotated monthly in CURRENT INDEX TO JOURNALS IN EDUCATION (CIJE) ,are not available through EDRS. However, they can be located in the journal section of most larger libraries by using the bibliographic information provided, requested through Interlibrary Loan, or ordered from the UMI reprint service.

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